



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
OREGON OPERATIONS OFFICE  
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May 19, 2008

Mr. Jim McKenna  
Port of Portland & Co-Chairman, Lower Willamette Group  
121 NW Everett  
Portland, Oregon 97209

Mr. Robert Wyatt  
Northwest Natural & Co-Chairman, Lower Willamette Group  
220 Northwest Second Avenue  
Portland, Oregon 97209

Re: Portland Harbor Superfund Site; Administrative Order on Consent for Remedial Investigation and Feasibility Study; Docket No. CERCLA-10-2001-0240. Pacific Lamprey

Dear Messrs. Wyatt and McKenna:

As you are aware, EPA's baseline ecological risk assessment (BERA) problem formulation states that "[Pacific Lamprey] is a special-status species and will be evaluated at the more conservative individual organism level." In response to this statement the Lower Willamette Group (LWG) developed a March 4, 2008 Memorandum which asks the question: "Do EPA and Oregon rules and guidance direct EPA to assess risk to Pacific Lamprey on an individual, as opposed to a population, basis?" This letter responds to your March 4, 2008 Memorandum regarding Pacific lamprey and the level to which they will be assessed in the baseline ecological risk assessment for the Portland Harbor site.

EPA acknowledges that "EPA and Oregon rules and guidance" do not "direct" EPA to assess risk to Pacific lamprey on an individual basis. EPA rules and risk assessment guidance do not preclude evaluation of any species at the individual level, and provide EPA with the discretion to assess a species on the individual level on a site-specific basis. EPA finds that Pacific lamprey are culturally significant natural resources to the Native American Tribes, and are in general decline in the Columbia and Willamette River basins. Pacific lamprey has been designated by the Oregon Department of Fish and Wildlife as a state species of conservation concern, and is also a federal species of concern. Based on these findings, EPA directs the Lower Willamette Group to assess Pacific lamprey at the individual organism level as described in the February 15, 2008 Problem Formulation for the Portland Harbor Ecological Risk

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Assessment. Specifically, the BERA Problem Formulation states on p. 48 that ecological risks at the individual organism level are generally estimated using NOEC or NOAEL toxicity reference values. This risk assessment approach is consistent with EPA ecological risk assessment guidance and practice.

#### Background:

The Comprehensive Environmental Response and Liability Act (CERCLA) does not address specifics about the risk assessment process, and neither does the National Contingency Plan (NCP). Accordingly, neither the statute nor the NCP prohibit the evaluation of species on an individual organism level basis. The preamble to the NCP indicates that one major objective of risk assessments in Superfund is to assess threats to ecosystems and the environment and develop remediation goals based on risks to the environment. 55 Fed. Reg. 8665, at 8709 (March 8, 1990). The preamble further discusses that although a uniform process should be used to develop risk assessments, risk assessments are generally site specific evaluations due to the variety of site conditions, nature of the site, the waste, and the potential exposures. 55 Fed. Reg. at 8709 – 8711.

EPA guidance provides that Superfund cleanups should result in the recovery or maintenance of healthy populations/communities of ecological receptors. "Issuance of Final Guidance: Ecological Risk Assessment and Risk Management Principles for Superfund Sites," OSWER Directive 9285.7-28 P, U.S. EPA, 10/799, page 3 ("Superfund remedial actions [as opposed to risk assessments] generally should not be designed to protect organisms on an individual basis (the exception being designated protected status resources such as listed or candidate threatened and endangered species or treaty protected species that may be exposed to site releases) . . . "). EPA guidance does not limit the exception to only species that are protected under the Endangered Species Act or Oregon's threatened and endangered species list, nor does EPA guidance place any restrictions on the level of biological organization at which ecological risk assessments are performed. The ecological risk assessment approach described in the February 15, 2008 Problem Formulation for the Baseline Ecological Risk Assessment at the Portland Harbor Site for Pacific lamprey is fully consistent with EPA risk assessment guidance, and does not constitute an exception to EPA guidance.

At the time the Portland Harbor work plan was being developed, Pacific Lamprey were a candidate threatened or endangered species under the Endangered Species Act. Accordingly, Appendix B of the Portland Harbor RI/FS Programmatic Work Plan (See Sections 2.1.1 and 2.4) indicates that Pacific lamprey will be assessed at the individual organism level. EPA acknowledges that subsequent to approval of the Portland Harbor RI/FS Programmatic Work Plan the U.S. Fish and Wildlife Service (USFWS) decided not to list the Pacific Lamprey on the threatened and endangered species list. However, the LWG did not inform EPA at that time that it sought to change the approach for assessing Pacific Lamprey in the baseline ecological risk assessment based on the USFWS decision not to list Pacific lamprey on the threatened and endangered species list.

EPA believes that significant site-specific information and circumstances exist to support evaluating Pacific lamprey at the individual organism level in the Portland Harbor Superfund

Site ecological risk assessment. The USFWS review of the petition noted the decline of Pacific lamprey in Oregon. The review states in part that "Observations and records of adult Pacific lamprey passage at mainstem Columbia and Snake River dams indicate the species has declined substantially in these rivers and their tributaries in Oregon (Kostow 2002)" and "There is a long history of commercial and Tribal harvest of Pacific lampreys at Willamette Falls. Commercial harvest records dating from the early 1900s show a peak of approximately 397,000 pounds (180,076 kilograms) of Pacific lampreys in the mid-1940s. From 1943 to 1949, 80,000 to 500,000 lampreys, estimated to be 10 to 20 percent of the mn, were harvested (Close et al. 1995). As recently as 1994, about 5,000 lampreys were harvested. Commercial harvest was ultimately eliminated in 2002 by the Oregon Fish and Wildlife Commission because it could not determine the percent of the total mn harvested annually (Kostow 2002)."

Pacific lamprey have been identified as "vulnerable" on the 1997 Oregon State Sensitive Species List. Additionally, the USFWS has initiated a Pacific Lamprey Conservation Initiative and as a part of the Initiative, will be coordinating a range-wide Pacific Lamprey Conservation Plan. See March 4, 2008 Letter from Ren Lohofener, Regional Director, USFWS to Colonel Anthony Hofman, U.S. Army Corps of Engineers.

Pacific lamprey are a highly valued resource and cultural icon (Close, 2002) of Native American Tribes in the Columbia and Willamette River basin. Pacific lamprey have cultural, religious, and spiritual importance to the Tribes, are used as a medicinal resource, and are an important subsistence food for tribal members. They are a part of the Columbia River Basin tribal culture and are collected during seasonal harvests as part of ceremonies and celebrations. Tribal members already are affected by the declines in the Pacific lamprey population that have already occurred; some traditional fishing areas are now barren, and overall lamprey harvest levels have been reduced. Therefore, Pacific lamprey are an especially important tribal cultural resource, and this importance needs to be taken into account in the ecological risk assessment.

#### Conclusion:

The information presented above demonstrates the following:

- Neither CERCLA, the NCP, nor EPA guidance limits the ecological risk assessment of species at the individual organism level to only federal or state listed Threatened or Endangered species.
- Pacific Lamprey are an important cultural resource for Native American Tribes in the Columbia and Willamette River basins.
- Pacific Lamprey are designated as a state listed species of conservation concern and a federal species of concern.
- Pacific Lamprey are in decline and a conservation plan is under development to protect the species.

EPA directs the Lower Willamette Group to assess Pacific lamprey on an individual organism level as outlined in the Problem Formulation for the Ecological Risk Assessment developed by EPA on February 15, 2008. The individual organism level is a conservative assessment of the toxicological impacts of contamination that may impact the population. As a

result, it is EPA's intent to evaluate risk to Pacific lamprey at the conservative end of the NOAEL to LOAEL risk range (e.g., at the no observed adverse effect level [NOAEL]).

It should be noted that EPA's determination that there are sufficient site-specific reasons to assess risks to Pacific Lamprey on an individual organism level is to ensure that they are properly assessed and that EPA will have information to evaluate protective remediation goals. However, this determination does not necessarily suggest or require that Pacific Lamprey be given the same protections accorded species that are legally listed under state or federal endangered species acts related to the implementation of the selected remedy.

If you have any questions, please contact Chip Humphrey at (503) 326-2678 or Eric Blischke (503) 326-4006. All legal inquiries should be directed to Lori Cora at (206) 553-1115.

Sincerely,

Chip Humphrey  
Eric Blischke  
Remedial Project Managers

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References:

Close, D., et. al. 1995. Status Report of the Pacific Lamprey (*Lametra tridntata*) in the Columbia Basis, Bonneville Power Administration Project Number 94-026.

Close, D. 2002. Ecological and Cultural Importance of a Species at Risk of Extinction, Pacific Lamprey. Project No. 1944-02600, BPA Repot DOE/BP-00005455-4.

Kostow, K. 2002. Natural History Status and Analysis of Management Issues. Oregon Department of Fish and Wildlife.